UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/852,433	05/09/2001	Hemal V. Shah	42390P10681	4979

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EXAMINER
LY, ANH VU H

ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 12/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO 90C (Rev 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/852,433	SHAH ET AL.
		Examiner	Art Unit	
		Anh-Vu H Ly	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-42* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date <u>08/03/2001</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____ .

DETAILED ACTION

Oath/Declaration

1.   The oath or declaration is defective. A new oath or declaration in compliance with 37

CFR 1.67(a) identifying this application by application number and filing date is required. See

MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: it is unsigned.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United
States before the invention thereof by the applicant for patent, or on an international application by another who
has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention
thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999

(AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

do not apply when the reference is a U.S. patent resulting directly or indirectly from an

international application filed before November 29, 2000. Therefore, the prior art date of the

reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA

35 U.S.C. 102(e)).

2.   Claims 1-2, 4-14, 16-26, and 28-42 are rejected under 35 U.S.C. 102(e) as being

anticipated by Brendel (US Patent No. 6,772,333B1).

With respect to claims 1, 9, 13, 21, 25, and 33, Brendel discloses (col. 9, line 31 – col. 10,

line 17 and Fig. 8) that the load-balancer is activated when a connection is received by web farm

from the network (receiving a data packet from a source). The load-balancer parses the

incoming request data for a SSL session ID field (determining whether a session identity exists

for a communication session with the source). When no matching SSL session ID is found in the

table, then the connection is for a new SSL session. The server is assigned using the default

load-balancing method (transmitting the data packet to a destination if no session identity exists).

The server-generated SSL session ID, which is then returned from the server in the same

connection as part of the response to the encrypted client request, is stored in a new or empty

entry in the table, along with the server the connection was assigned. Thus the new server

assignment for the SSL session is stored in the table (receiving the session identity from the

destination). Subsequent connections having the same SSL session ID will be directed to the

same server (transmitting subsequent data packets received from the source along with the

session identity to the destination).

With respect to claims 2, 14, and 26, Brendel discloses (col. 9, lines 2-12 and Fig. 7) that

the load-balancer will attempt to find the SSL session identity for this ID in its SSL session table

using SSL ID field 90. Herein, SSL ID field 90 is the address information (searching a table

using the address information for the session identity).

With respect to claims 4-5, 16-17, and 28-29, Brendel discloses (col. 10, lines 6-9) that

the server is assigned using the default load-balancing method, whether random, least-used, or

some other assignment method. This implies that the destination address of the request is

replaced by the address of the assigned server (at least one of a destination identity field)

(selecting a particular destination; adding a header to the received data packet; and transmitting the header along with the received data packet to the destination).

With respect to claims 6, 10, 12, 18, 22, 24, 30, 34, and 36, Brendel discloses in Fig. 8, a flowchart indicating load-balancing for connections that are assigned to the same server. Therefore, the destination address of the reply packet is the address of the load-balancer (not transmitting at least part of the source's address information in the received data packet). Once the load-balancer receives the reply packet, the destination address is replaced with the client address (removing a header prior to transmitting the data packets received from the destination to the source; and using information in the header to transmit data packets received from the destination to the source).

With respect to claims 7, 19, and 31, Brendel discloses in Fig. 8, a flowchart indicating load-balancing for connections that are assigned to the same server. It should be understood that in the reply packets, the header always contains the port and address information for receiving the reply packets (wherein the information in the header comprises source port identity).

With respect to claims 8, 20, and 32, Brendel discloses (col. 10, lines 14-15) that subsequent connections having the same SSL session ID will be directed to the same server. This implies that the address information of the source is not included in the request packet (not transmitting at least part of address information in the received subsequent data packets to the destination).

With respect to claims 11, 23, and 35, Brendel discloses (col. 10, lines 9-13) that the
server-generated SSL session ID, which is then returned from the server in the same connection
as part of the response to the encrypted client request, is stored in a new or empty entry in the
table, along with the server the connection was assigned. This implies that the server must have
a table for storing information related to the connection assigned and the SSL session ID
(obtaining network address information of the network node using the session identity comprises
using session identity as a pointer to the network node's address information).

With respect to claims 37-42, Brendel discloses (col. 9, line 62 – col. 10, line 2) that the
SSL session ID found in step 82 is extracted from the incoming request data (receiving a data
packet from a source with a session identity). If a matching SSL session ID is found the table,
the server assignment in the matching entry is read out of the table. Herein, storing session
identity is not needed (storing session identity in a forwarding table, if needed). This server
assignment from the table is used to direct the incoming connection to the assigned server.
Herein, session identity is replaced with the address of the assigned server (removing the session
identity from the data packet and transmitting the data packet to the destination).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 3, 15, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Brendel (US Patent No. 6,772,333B1).

With respect to claims 3, 15, and 27, Brendel discloses in Fig. 7, the load-balancer reads

the incoming packets, extracts the SSL session ID, and finds the SSL session entry in the SSL

session table. Brendel does not disclose that using the address information in a hash function to

obtain a hash value; and using the hash value to find the session identity. However, hash

function is well known in the art. Therefore, it would have been obvious to one having ordinary

skill in the art at the time the invention was made to include hash function for searching in

Brendel's system, since hash function is fast and thorough.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Primak et al (US Pub 2001/0039586 A1) discloses system and method for dynamic

content routing.

Brendel et al (US Patent No. 5,774,660) discloses WWW server with delayed resource

binding for resource based load balancing on a distributed resource multi-node network.

Levy et al (US Pub 2002/0124074 A1) discloses monitoring of remote data access on a
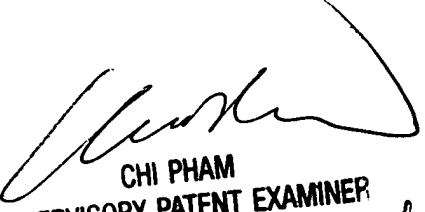
public computer network.

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Anh-Vu H Ly whose telephone number is 571-272-3175. The

examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

avl

CHI PHAM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600   12/17/08